

Objectives of the Vegetation Management Focus Group

The U.S. Department of Energy (DOE) is evaluating methods of reducing the long-term costs and risks associated with operating, monitoring, and managing its legacy sites. Vegetation management is a significant and growing component of annual maintenance costs at legacy sites. Long-term surveillance plans often require suppression of plant growth on rock-covered disposal cells because scientists have concerns that (1) plants' roots may increase water percolation through compacted soil layers into buried contaminated material (and hence, increase the potential for spreading contamination), or (2) roots may take up and disperse buried contaminants (e.g., wind may spread contaminated plant materials or wildlife may ingest contaminated plant materials). DOE is responsible for protecting human and ecological health at its legacy sites and wants to ensure that the implemented remedies remain viable over the long term. At many sites, DOE, as property owner, is required by law to control populations of noxious weeds growing on or around disposal cells. As DOE inherits additional legacy sites, the cost of controlling unwanted vegetation and noxious weeds is expected to increase.

The Vegetation Management Focus Group was formed to identify and implement more cost-effective and sustainable ways to manage vegetation at legacy sites. Members of the group include scientists, site managers, and human health specialists. The group has identified a list of issues that could affect the management of legacy sites and a corresponding list of goals for managing vegetation.

Issues

- Construction of disposal cells created unfavorable conditions on and around the cells for establishing desirable vegetation.
- Noxious weeds have established on many sites.
- Ecological impacts were generally not considered during the design and construction of disposal cells or as part of evaluations of long-term performance.
- Vegetation control recommendations in the long-term surveillance and maintenance plans may not be considering a holistic approach to vegetation management.
- Impacts from the disposal cells on groundwater conditions are not well known.
- Stakeholders may have negative perceptions concerning disposal cell sites (e.g., covers should not have vegetation, herbicides contaminate surface water).

Goals

- Protect groundwater resources (plants can be part of the remedy).
- Prevent long-term noxious weed development.
- Better manage habitat, including the establishment of native plant communities.
- Identify long-term sustainable solutions that are cost effective.
- Educate stakeholders.